

**Flood Control Project Maintenance
Levee Inspections**

Fall 2016 Levee Maintenance Deficiency Summary Report

Overall LMA & Unit Ratings, including USACE Erosion Survey

Sacramento River Basin

| MA0003 | Overall LMA Rating | Total LMA Miles | | | | | | |
|--|------------------------|------------------|--------------|-------------|-------------|---------|------------------------------|---------|
| Sutter Maintenance Yard Maintenance Area 0003 | A | 5.11 | | | | | | |
| Rated Item | Maintenance Deficiency | | | | Enforcement | | Design & System Obsolescence | |
| | M Miles | U Miles | M + 4U Miles | Threshold % | M Miles | U Miles | M Miles | U Miles |
| <i>Earthen Levee</i> | | | | | | | | |
| Trim / Thin Trees | 0.01 | | 0.01 | 0.20% | | | | |
| Encroachments | | | | | 0.05 | | | |
| Animal Control | 0.03 | | 0.03 | 0.59% | | | | |
| <i>Supplemental</i> | | | | | | | | |
| 2015 USACE Erosion Survey, DRAFT | 0.09 | | 0.09 | 1.76% | | | | |
| DWR UCIP Field Study | | | | | 0.03 | 0.02 | | |
| <i>LMA Totals:</i> | 0.13 | 0.00 | 0.13 | 2.54% | 0.08 | 0.02 | 0.00 | 0.00 |
| Unit No. 01 Feather River RB | Overall Unit Rating | Total Unit Miles | | | | | | |
| MA0003 | A | 5.11 | | | | | | |
| Rated Item | Maintenance Deficiency | | | | Enforcement | | Design & System Obsolescence | |
| | M Miles | U Miles | M + 4U Miles | Threshold % | M Miles | U Miles | M Miles | U Miles |
| <i>Earthen Levee</i> | | | | | | | | |
| Trim / Thin Trees | 0.01 | | 0.01 | 0.20% | | | | |
| Encroachments | | | | | 0.05 | | | |
| Animal Control | 0.03 | | 0.03 | 0.59% | | | | |
| <i>Supplemental</i> | | | | | | | | |
| 2015 USACE Erosion Survey, DRAFT | 0.09 | | 0.09 | 1.76% | | | | |
| DWR UCIP Field Study | | | | | 0.03 | 0.02 | | |
| <i>Unit Totals:</i> | 0.13 | 0.00 | 0.13 | 2.54% | 0.08 | 0.02 | 0.00 | 0.00 |

**Flood Control Project Maintenance
Levee Inspections**
LMA District Cover Sheet
Fall 2016 Levee Inspection Results

Sutter Maintenance Yard Maintenance Area 0003

| | Spring (March - May) | Summer ** (June - August) | Fall (September - November) | Winter ** (December - February) |
|----------------------------------|-------------------------|------------------------------|--------------------------------|------------------------------------|
| † Overall LMA Rating (Fall Only) | | | A | |

** Non-receipt of Summer or Winter Inspection
Reports may effect overall annual rating.

† SPRING INSPECTIONS: Overall maintenance ratings are not determined for the spring inspection results. Individual maintenance deficiencies are rated using the same criteria in the spring and in the fall.

FALL INSPECTIONS: The overall maintenance rating shown above is based on operation and maintenance deficiencies identified within the attached unit inspection reports. This rating is not intended to be an indication of risk.

Comments

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**Flood Control Project Maintenance
Levee Inspections**

Unit Cover Sheet

Fall 2016 Levee Inspection Results

Sutter Maintenance Yard Maintenance Area 0003

| Waterway | | | Bank | Unit Miles |
|--|-------------------------|---------------------------|--------------------------------|---------------------------------|
| Unit No. 01 Feather River | | | Right | 5.11 |
| | Spring (March - May) | Summer (June - August) | (September - November) Fall | Winter (December - February) |
| Unit Maintenance Rating (Fall Only) | | | A | |
| Date of Inspection | 3/24/2016 - 3/30/2016 | | 10/4/2016 - 10/4/2016 | |
| DWR Inspector | Sterling York | | Sterling York | |
| Accompanied By | Steve Beckley | | Steve Beckley | |

Summer & Winter Inspections

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

<http://cdec.water.ca.gov/lma.html>

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0003

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|---------------------------|-------|------------|--------------------------|---------------|
| Unit No. 01 Feather River | Right | 5.11 | 10/04/2016 10/04/2016 | Sterling York |

| | | | | | |
|--|----------------------------------|--------------|------------------------|------------|-----|
| LM Start | | Rating ** | A | Issue No. | 4 |
| LM End | | Issue Type + | Ma | Location * | N/A |
| Category | Earthen Levee | | GPS Latitude/Longitude | | |
| | | | Start | End | |
| Item | Operations & Maintenance Manuals | | | ° | ° |
| | | | | ° | ° |
| DWR ID | DWR_MA0003_01_s_2013_4 | | | | |
| Comment Code | | | | | |
| | | | | | |
| Inspector Comment | | | | | |
| Sutter Yard has a copy of the O&M manuals. | | | | | |

No Photos

| | | | | | |
|--|--------------------------------|--------------|------------------------|------------|-----|
| LM Start | | Rating ** | A | Issue No. | 6 |
| LM End | | Issue Type + | Ma | Location * | N/A |
| Category | Earthen Levee | | GPS Latitude/Longitude | | |
| | | | Start | End | |
| Item | Emergency Supplies & Equipment | | | ° | ° |
| | | | | ° | ° |
| DWR ID | DWR_MA0003_01_s_2013_6 | | | | |
| Comment Code | | | | | |
| | | | | | |
| Inspector Comment | | | | | |
| The Sutter Yard has adequate flood fight supplies and equipment. | | | | | |

No Photos

| | | | | | |
|--|-------------------------------|--------------|------------------------|------------|-----|
| LM Start | | Rating ** | A | Issue No. | 7 |
| LM End | | Issue Type + | Ma | Location * | N/A |
| Category | Earthen Levee | | GPS Latitude/Longitude | | |
| | | | Start | End | |
| Item | Flood Preparedness & Training | | | ° | ° |
| | | | | ° | ° |
| DWR ID | DWR_MA0003_01_s_2013_7 | | | | |
| Comment Code | | | | | |
| | | | | | |
| Inspector Comment | | | | | |
| The Sutter Yard has received flood fight training. | | | | | |

No Photos

| | | | |
|--|--|---|---|
| * Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown | ** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable | N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain | + Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement |
|--|--|---|---|

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0003

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|---------------------------|-------|------------|--------------------------|---------------|
| Unit No. 01 Feather River | Right | 5.11 | 10/04/2016 10/04/2016 | Sterling York |

| | | | | | |
|--|---------------------------|--------------|----|------------------------|---------------|
| LM Start | 0.01 | Rating ** | A | Issue No. | 11 |
| LM End | 5.11 | Issue Type + | Ma | Location * | LS |
| Category | Earthen Levee | | | GPS Latitude/Longitude | |
| | | | | Start | End |
| Item | Vegetation | | | 38.897990 ° | 38.950968 ° |
| | | | | -121.617822 ° | -121.585754 ° |
| DWR ID | DWR_MA0003_01_f _ 2016_11 | | | | |
| Comment Code | | | | | |
| V1 : Control annual grass and weeds on the levee slopes and easements. | | | | | |
| Inspector Comment | | | | | |
| Very well maintained vegetation. Fall 2016. | | | | | |

Photo 1 of 1 : FA_2016_MA0003_195_11_20161007_00026.jpg



View of very well maintained vegetation, landside looking downstream. Fall 2016.

| | | | | | |
|--|-------------------------|--------------|----|------------------------|---------------|
| LM Start | 0.01 | Rating ** | A | Issue No. | 12 |
| LM End | 5.11 | Issue Type + | Ma | Location * | WS |
| Category | Earthen Levee | | | GPS Latitude/Longitude | |
| | | | | Start | End |
| Item | Vegetation | | | 38.897990 ° | 38.950968 ° |
| | | | | -121.617822 ° | -121.585754 ° |
| DWR ID | DWR_MA0003_01_f_2016_12 | | | | |
| Comment Code | | | | | |
| V1 : Control annual grass and weeds on the levee slopes and easements. | | | | | |
| Inspector Comment | | | | | |
| Very well maintained vegetation. Fall 2016. | | | | | |

Photo 1 of 1 : FA_2016_MA0003_195_12_20161007_00027.jpg



View of very well maintained vegetation, waterside looking downstream. Fall 2016.

| | | | | | |
|--|--|---|--|---|--|
| * Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown | | ** Rating A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable C : Corrected U : Unacceptable A/W : Acceptable but Monitor & Maintain | | + Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement | |
|--|--|---|--|---|--|

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0003

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|---------------------------|-------|------------|--------------------------|---------------|
| Unit No. 01 Feather River | Right | 5.11 | 10/04/2016 10/04/2016 | Sterling York |

| | | | | | |
|--|--------------------------|--------------|----|------------------------|---------------|
| LM Start | 0.78 | Rating ** | M | Issue No. | 140 |
| LM End | 0.78 | Issue Type + | Ma | Location * | LS |
| Category | Earthen Levee | | | GPS Latitude/Longitude | |
| | | | | Start | End |
| Item | Animal Control | | | 38.903339 ° | 38.903339 ° |
| | | | | -121.606209 ° | -121.606209 ° |
| DWR ID | DWR_MA0003_01_f_2014_140 | | | | |
| Comment Code | | | | | |
| A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows. | | | | | |
| Inspector Comment | | | | | |
| There is a rodent hole on the landward toe road approximately 8" in diameter that needs to be repaired. Fall 2016. | | | | | |

Photo 1 of 2 : FA_2016_MA0003_195_140_20161007_00038.jpg



This photo was taken from the landward levee slope near the toe road facing north looking at an approximately 8" rodent hole. Fall 2016.

| | | | | | |
|----------|-------------|--------------|----|------------|-------------------|
| LM Start | 0.78 | Rating ** | M | Issue No. | 140 (cont) |
| LM End | 0.78 | Issue Type + | Ma | Location * | LS |

Photo 2 of 2 : FA_2016_MA0003_195_140_20161007_00039.jpg



This is another photo of the rodent hole to show its relationship to the levee toe, toe road, and drainage ditch. Fall 2016.

| | | |
|--|---|---|
| * Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown | ** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain | + Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement |
|--|---|---|

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0003

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|---------------------------|-------|------------|--------------------------|---------------|
| Unit No. 01 Feather River | Right | 5.11 | 10/04/2016 10/04/2016 | Sterling York |

| | | | | | |
|---|-------------------------|--------------|----|------------------------|---------------|
| LM Start | 0.80 | Rating ** | M | Issue No. | 21 |
| LM End | 0.80 | Issue Type + | Ma | Location * | LS |
| Category | Earthen Levee | | | GPS Latitude/Longitude | |
| | | | | Start | End |
| Item | Animal Control | | | 38.903277 ° | 38.903277 ° |
| | | | | -121.605864 ° | -121.605864 ° |
| DWR ID | DWR_MA0003_01_f_2016_21 | | | | |
| Comment Code | | | | | |
| A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows. | | | | | |
| Inspector Comment | | | | | |
| Repair animal hole at landside levee toe. Fall 2016. | | | | | |

Photo 1 of 2 : FA_2016_MA0003_195_21_20161007_00035.jpg



View of large hole at the landside levee toe. Look to be caused by a larger animal other than squirrels. Fall 2016.

| | | | | | |
|----------|-------------|--------------|----|------------|------------------|
| LM Start | 0.80 | Rating ** | M | Issue No. | 21 (cont) |
| LM End | 0.80 | Issue Type + | Ma | Location * | LS |

Photo 2 of 2 : FA_2016_MA0003_195_21_20161007_00037.jpg



View from the crown of where this hole is. Fall 2016.

| | | | | | |
|--|--|---|--|---|--|
| * Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown | | ** Rating A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable C : Corrected U : Unacceptable A/W : Acceptable but Monitor & Maintain | | + Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement | |
|--|--|---|--|---|--|

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0003

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|---------------------------|-------|------------|--------------------------|---------------|
| Unit No. 01 Feather River | Right | 5.11 | 10/04/2016 10/04/2016 | Sterling York |

| | | | | | |
|----------|----------------------|--------------|----|------------------------|---------------|
| LM Start | 0.81 | Rating ** | M | Issue No. | 141 |
| LM End | 0.81 | Issue Type + | En | Location * | LS |
| Category | Supplemental | | | GPS Latitude/Longitude | |
| | | | | Start | End |
| Item | DWR UCIP Field Study | | | 38.903264 ° | 38.903264 ° |
| | | | | -121.605698 ° | -121.605698 ° |
| DWR ID | | | | | |

Comment Code

Inspector Comment

FS_ID:50237
DS_ID:17091
EP_NO: 13624
Repair Type: Non-Urgent
Crossing Status: Found
UCIP Comments: 10/10/2016 Still no flap gate on the WS end of this pipe but being that its an Up-and-Over pump design im not sure if its even needed. (DWR Sutter Yard - afreitag)4/18/2016 No repairs have been made to the pipe yet. (DWR Sutter Yard - afreitag)5/12/2015 Water level high in WS ditch so could not see WS end of crossing. Do not believe that repairs have been made yet. (DWR Sutter Yard - afreitag)11/17/2014 Same as last inspection. (DWR Sutter Yard - afreitag)5/14/2014 Pipe section that was suspected of leaking was dug up and deemed to be in good condition. No signs of leaks were found. (DWR Sutter Yard - afreitag)10/30/2013 Same as last inspection. (DWR Sutter Yard - afreitag)5/21/2013 SBFCA project recommends replacing in accordance with title 23. Hole in slope along outside of standpipe thats about 1 foot deep with moisture in the bottom. Dirt inside standpipe around siphon breaker also wet indicating there may be a leak. Need to investigate source or moisture. (DWR Sutter Yard - afreitag)
FIELD_STRUCT_DESC: 20-inch steel drainage pipe through the levee 3 feet below the crown. Siphon breaker on the waterside (WS) shoulder. Open on the WS end. Pump in ditch located on the landside (LS). (Permit No. 13624, 1983 - Danna and Danna, Inc.) [Additional Reference(s): DWR Levee Log, 2005].
FS Date: 10/11/2016 12:03:36 PM

| | | | | | |
|----------|-------------|--------------|----|------------|-------------------|
| LM Start | 0.81 | Rating ** | M | Issue No. | 141 (cont) |
| LM End | 0.81 | Issue Type + | En | Location * | LS |

Photo 1 of 2 : UCIP_FA_2016_50237_64654.jpg



Pump on concrete headwall at LS toe.

Photo 2 of 2 : UCIP_FA_2016_50237_64653.jpg



Pipe at outlet on WS toe

| * Location | ** Rating | + Issue Type |
|---|--|--|
| LS : Land Side WS : Water Side CR : Crown | A : Acceptable M : Minimally Acceptable U : Unacceptable | N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain |
| N/A : Not Applicable | | Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement |

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0003

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|---------------------------|-------|------------|--------------------------|---------------|
| Unit No. 01 Feather River | Right | 5.11 | 10/04/2016 10/04/2016 | Sterling York |

| | | | | | |
|---|----------------------|--------------|----|------------------------|---------------|
| LM Start | 0.81 | Rating ** | U | Issue No. | 142 |
| LM End | 0.81 | Issue Type + | En | Location * | LS |
| Category | Supplemental | | | GPS Latitude/Longitude | |
| | | | | Start | End |
| Item | DWR UCIP Field Study | | | 38.903264 ° | 38.903264 ° |
| | | | | -121.605698 ° | -121.605698 ° |
| DWR ID | | | | | |
| Comment Code | | | | | |
| | | | | | |
| Inspector Comment | | | | | |
| FS_ID:50238 DS_ID:17092 EP_NO: N/A Repair Type: Urgent Crossing Status: Found UCIP Comments: 10/10/2016 WS pipe end was underwater for inspection but the sandbags still appear to be in place. (DWR Sutter Yard - afreitag)4/18/2016 No repairs have been made to the pipe yet. (DWR Sutter Yard - afreitag)5/12/2015 Water level high in WS ditch so could not see WS end of crossing. Do not believe that repairs have been made yet. (DWR Sutter Yard - afreitag)11/17/2014 Same as last inspection. (DWR Sutter Yard - afreitag)5/14/2014 Same as last inspection. (DWR Sutter Yard - afreitag)10/30/2013 Same as last inspection. (DWR Sutter Yard - afreitag)5/21/2013 SBFCA project recommends replacing in accordance with title 23. High water levels in WS ditch have pipe ends underwater but repairs have not yet been completed but are planned for when water levels drop. (DWR Sutter Yard - afreitag)10/10/2012 Flap gates not visible on waterward headwall and it appears as though they have been replaced by sandbags. Slide gates on LS appear to be closed yet water leaks excessively from the WS at the sandbagged headwall. (DWR UCIP - wwylie) FIELD_STRUCT_DESC: 1 of 2. 18-inch steel drainage pipe through the levee, 32 feet below the crown. Flap gate on the waterside (WS) end. Slide gate on the landside (LS) end at concrete headwall. Concrete "U" shaped headwall at the WS toe. [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 143, August 1955 (Station 982+00)]. FS Date: 10/11/2016 12:20:54 PM | | | | | |

Photo 1 of 2 : UCIP_FA_2016_50238_64649.jpg



Concrete headwall with walkway and slide gates at LS toe.

| * Location | ** Rating | + Issue Type |
|---|---|--|
| LS : Land Side WS : Water Side CR : Crown | A : Acceptable M : Minimally Acceptable U : Unacceptable | Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement |
| N/A : Not Applicable | N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain | |

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0003

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|---------------------------|-------|------------|--------------------------|------------------|
| Unit No. 01 Feather River | Right | 5.11 | 10/04/2016 10/04/2016 | Sterling York |

| | | | | | |
|----------|----------------------|--------------|----|------------------------|---------------|
| LM Start | 0.81 | Rating ** | U | Issue No. | 142 (cont) |
| LM End | 0.81 | Issue Type + | En | Location * | LS |
| Category | Supplemental | | | GPS Latitude/Longitude | |
| | | | | Start | End |
| Item | DWR UCIP Field Study | | | 38.903264 ° | 38.903264 ° |
| | | | | -121.605698 ° | -121.605698 ° |
| DWR ID | | | | | |

Comment Code

Inspector Comment

FS_ID:50238
DS_ID:17092
EP_NO: N/A
Repair Type: Urgent
Crossing Status: Found
UCIP Comments: 10/10/2016 WS pipe end was underwater for inspection but the sandbags still appear to be in place. (DWR Sutter Yard - afreitag)4/18/2016 No repairs have been made to the pipe yet. (DWR Sutter Yard - afreitag)5/12/2015 Water level high in WS ditch so could not see WS end of crossing. Do not believe that repairs have been made yet. (DWR Sutter Yard - afreitag)11/17/2014 Same as last inspection. (DWR Sutter Yard - afreitag)5/14/2014 Same as last inspection. (DWR Sutter Yard - afreitag)10/30/2013 Same as last inspection. (DWR Sutter Yard - afreitag)5/21/2013 SBFCA project recommends replacing in accordance with title 23. High water levels in WS ditch have pipe ends underwater but repairs have not yet been completed but are planned for when water levels drop. (DWR Sutter Yard - afreitag)10/10/2012 Flap gates not visible on waterward headwall and it appears as though they have been replaced by sandbags. Slide gates on LS appear to be closed yet water leaks excessively from the WS at the sandbagged headwall. (DWR UCIP - wwylyie)
FIELD_STRUCT_DESC: 1 of 2. 18-inch steel drainage pipe through the levee, 32 feet below the crown. Flap gate on the waterside (WS) end. Slide gate on the landside (LS) end at concrete headwall. Concrete "U" shaped headwall at the WS toe. [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 143, August 1955 (Station 982+00)].
FS Date: 10/11/2016 12:20:54 PM

Photo 2 of 2 : UCIP_FA_2016_50238_64648.jpg



Concrete U shaped headwall on WS toe filled in with Sandbags. 16-inch pipe shown over top of headwall.

| | | | |
|--|--|--|---|
| * Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown | ** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable | N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain | + Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement |
|--|--|--|---|

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0003

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|---------------------------|-------|------------|--------------------------|------------------|
| Unit No. 01 Feather River | Right | 5.11 | 10/04/2016 10/04/2016 | Sterling York |

| | | | | | |
|----------|----------------------|--------------|----|------------------------|---------------|
| LM Start | 0.81 | Rating ** | U | Issue No. | 143 |
| LM End | 0.81 | Issue Type + | En | Location * | LS |
| Category | Supplemental | | | GPS Latitude/Longitude | |
| | | | | Start | End |
| Item | DWR UCIP Field Study | | | 38.903264 ° | 38.903264 ° |
| | | | | -121.605698 ° | -121.605698 ° |
| DWR ID | | | | | |

Comment Code

Inspector Comment

FS_ID:50239
DS_ID:17136
EP_NO: N/A
Repair Type: Urgent
Crossing Status: Found
UCIP Comments: 10/10/2016 WS pipe end was underwater for the inspection but the sandbags appear to still be in place. (DWR Sutter Yard - afreitag)4/18/2016 No repairs have been made to the pipe yet. (DWR Sutter Yard - afreitag)5/12/2015 Watelevel high in WS ditch so could not see WS end of crossing. Do not believe that repairs have been made yet. (DWR Sutter Yard - afreitag)11/17/2014 Same as last inspection. (DWR Sutter Yard - afreitag)5/14/2014 Same as last inspection. (DWR Sutter Yard - afreitag)10/30/2013 Same as last inspection. (DWR Sutter Yard - afreitag)5/21/2013 SBFCA project recommends replacing in accordance with title 23. High water levels in WS ditch have pipe ends underwater but repairs have not yet been completed but are planned for when water levels drop. (DWR Sutter Yard - afreitag)10/10/2012 Flap gates not visible on waterward headwall and it appears as though they have been replaced by sandbags. Slide gates on LS appear to be closed yet water leaks excessively from the WS at the sandbagged headwall. (DWR UCIP - wwylie)
FIELD_STRUCT_DESC: 2 of 2. 18-inch steel drainage pipe through the levee, 32 feet below the crown. Flap gate on the waterside (WS) end. Slide gate on the landside (LS) end at concrete headwall. Concrete "U" headwall at the WS toe. [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 143, August 1955 (Station 982+00)].
FS Date: 10/11/2016 12:25:49 PM

Photo 1 of 2 : UCIP_FA_2016_50239_64662.jpg



Concrete headwall, slidegates, and metal walkway on LS toe.

*** Location**

LS : Land Side N/A : Not Applicable
WS : Water Side
CR : Crown

**** Rating**

A : Acceptable N : Not Inspected/Rated
M : Minimally Acceptable C : Corrected
U : Unacceptable A/W : Acceptable but Monitor & Maintain

+ Issue Type

Ma : Maintenance Deficiency
Ob : Design & System Obsolescence
En : Enforcement

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0003

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|---------------------------|-------|------------|--------------------------|---------------|
| Unit No. 01 Feather River | Right | 5.11 | 10/04/2016 10/04/2016 | Sterling York |

| | | | | | |
|----------|----------------------|--------------|----|------------------------|---------------|
| LM Start | 0.81 | Rating ** | U | Issue No. | 143 (cont) |
| LM End | 0.81 | Issue Type + | En | Location * | LS |
| Category | Supplemental | | | GPS Latitude/Longitude | |
| | | | | Start | End |
| Item | DWR UCIP Field Study | | | 38.903264 ° | 38.903264 ° |
| | | | | -121.605698 ° | -121.605698 ° |
| DWR ID | | | | | |

Comment Code

Inspector Comment

FS_ID:50239
DS_ID:17136
EP_NO: N/A
Repair Type: Urgent
Crossing Status: Found
UCIP Comments: 10/10/2016 WS pipe end was underwater for the inspection but the sandbags appear to still be in place. (DWR Sutter Yard - afreitag)4/18/2016 No repairs have been made to the pipe yet. (DWR Sutter Yard - afreitag)5/12/2015 Watelevel high in WS ditch so could not see WS end of crossing. Do not believe that repairs have been made yet. (DWR Sutter Yard - afreitag)11/17/2014 Same as last inspection. (DWR Sutter Yard - afreitag)5/14/2014 Same as last inspection. (DWR Sutter Yard - afreitag)10/30/2013 Same as last inspection. (DWR Sutter Yard - afreitag)5/21/2013 SBFCA project recommends replacing in accordance with title 23. High water levels in WS ditch have pipe ends underwater but repairs have not yet been completed but are planned for when water levels drop. (DWR Sutter Yard - afreitag)10/10/2012 Flap gates not visible on waterward headwall and it appears as though they have been replaced by sandbags. Slide gates on LS appear to be closed yet water leaks excessively from the WS at the sandbagged headwall. (DWR UCIP - wwylie)
FIELD_STRUCT_DESC: 2 of 2. 18-inch steel drainage pipe through the levee, 32 feet below the crown. Flap gate on the waterside (WS) end. Slide gate on the landside (LS) end at concrete headwall. Concrete "U" headwall at the WS toe. [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 143, August 1955 (Station 982+00)].
FS Date: 10/11/2016 12:25:49 PM

Photo 2 of 2 : UCIP_FA_2016_50239_64661.jpg



Concrete U shaped headwall on WS toe filled with sandbags.

| | | | |
|--|--|--|---|
| * Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown | ** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable | N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain | + Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement |
|--|--|--|---|

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0003

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|---------------------------|-------|------------|--------------------------|---------------|
| Unit No. 01 Feather River | Right | 5.11 | 10/04/2016 10/04/2016 | Sterling York |

| | | | | | |
|--|---------------------------------------|--------------|----|------------------------|---------------|
| LM Start | 1.51 | Rating ** | C | Issue No. | 13 |
| LM End | 1.51 | Issue Type + | Ma | Location * | CR |
| Category | Earthen Levee | | | GPS Latitude/Longitude | |
| | | | | Start | End |
| Item | Crown Surface / Depressions / Rutting | | | 38.904680 ° | 38.904680 ° |
| | | | | -121.594229 ° | -121.594229 ° |
| DWR ID | DWR_MA0003_01_s_2015_13 | | | | |
| Comment Code | | | | | |
| C2 : Repair depressions or ruts in the crown or slope. | | | | | |
| Inspector Comment | | | | | |
| Depression in the crowns shoulder has been repaired. Fall 2016 | | | | | |

No Photos

| | | | | | |
|---|-------------------------|--------------|-----|------------------------|---------------|
| LM Start | 1.77 | Rating ** | A/W | Issue No. | 14 |
| LM End | 1.77 | Issue Type + | Ma | Location * | LS |
| Category | Earthen Levee | | | GPS Latitude/Longitude | |
| | | | | Start | End |
| Item | Animal Control | | | 38.907025 ° | 38.907025 ° |
| | | | | -121.590375 ° | -121.590375 ° |
| DWR ID | DWR_MA0003_01_s_2015_14 | | | | |
| Comment Code | | | | | |
| A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows. | | | | | |
| Inspector Comment | | | | | |
| Rodent holes have been backfilled and no new evidenced of activity. Fall 2016. | | | | | |

Photo 1 of 1 : FA_2016_MA0003_195_14_20161007_00033.jpg



Rodent holes were backfilled and no longer exist at this location. Fall 2016.

| | | | | |
|--|--|---|--|---|
| * Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown | | ** Rating A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable C : Corrected U : Unacceptable A/W : Acceptable but Monitor & Maintain | | + Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement |
|--|--|---|--|---|

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0003

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|---------------------------|-------|------------|--------------------------|---------------|
| Unit No. 01 Feather River | Right | 5.11 | 10/04/2016 10/04/2016 | Sterling York |

| | | | | | |
|----------|----------------------|--------------|----|------------------------|---------------|
| LM Start | 2.17 | Rating ** | M | Issue No. | 144 |
| LM End | 2.17 | Issue Type + | En | Location * | LS |
| Category | Supplemental | | | GPS Latitude/Longitude | |
| | | | | Start | End |
| Item | DWR UCIP Field Study | | | 38.911734 ° | 38.911734 ° |
| | | | | -121.586106 ° | -121.586106 ° |
| DWR ID | | | | | |

Comment Code

Inspector Comment

FS_ID:50244
DS_ID:17088
EP_NO: 3284
Repair Type: Non-Urgent
Crossing Status: Found
UCIP Comments: 10/10/2016 LS pipe end was mostly submerged so could not verify the connectivity between the LS headwall and WS vault. Blackberries and still overgrown on WS.(DWR Sutter Yard - afreitag)4/18/2016 WS vault is being overgrown with blackberries. They should be sprayed and cleared back. No other problems were noticeable with this crossing.5/12/2015 Only the right flapgate appeared to be abandoned. The left and middle flap gates were flowing water during the last inspection.11/17/2014 Same as last inspection.5/14/2014 Same as last inspection.10/30/2013 Same as last inspection.5/21/2013 Pumping plant was running and filling concrete vault on WS toe through the left flap gate and then flowing through levee pipe and filling irrigation ditch on LS. Left and middle flap gates appear to be connected to pumps and right gate appears abandoned. Recommend contacting owner to get more details.10/10/2012 Pumping plant has been disconnected from levee. Need to determine if abandonment is appropriate or if this is now a gravity drain with flap gate.
FIELD_STRUCT_DESC: 32-inch by 32-inch reinforced concrete irrigation culvert through the levee, approximately 28 feet below the crown. Transition between vault on the waterside (WS) and box culvert within levee section is made with a 41-inch corrugated metal pipe (CMP). Slide gate located on the landside (LS) at concrete headwall. Flap gate in concrete vault on the WS at terminal of pipes from pump structure in floodway. Pipes from pump station, located on the WS, are no longer connected. (Permit No. 3284, 1960 - Richards) [Additional Reference(s): DWR Levee Log, 2005].
FS Date: 10/11/2016 12:50:33 PM

Photo 1 of 2 : UCIP_FA_2016_50244_64668.jpg



32X32 box culvert on LS toe in Concrete U shaped channel with slide gate.

| * Location | ** Rating | + Issue Type |
|---|---|--|
| LS : Land Side WS : Water Side CR : Crown | A : Acceptable M : Minimally Acceptable U : Unacceptable | Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement |
| N/A : Not Applicable | N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain | |

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0003

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|---------------------------|-------|------------|--------------------------|---------------|
| Unit No. 01 Feather River | Right | 5.11 | 10/04/2016 10/04/2016 | Sterling York |

| | | | | | |
|----------|----------------------|--------------|----|------------------------|---------------|
| LM Start | 2.17 | Rating ** | M | Issue No. | 144 (cont) |
| LM End | 2.17 | Issue Type + | En | Location * | LS |
| Category | Supplemental | | | GPS Latitude/Longitude | |
| | | | | Start | End |
| Item | DWR UCIP Field Study | | | 38.911734 ° | 38.911734 ° |
| | | | | -121.586106 ° | -121.586106 ° |
| DWR ID | | | | | |

Comment Code

Inspector Comment

FS_ID:50244
DS_ID:17088
EP_NO: 3284
Repair Type: Non-Urgent
Crossing Status: Found
UCIP Comments: 10/10/2016 LS pipe end was mostly submerged so could not verify the connectivity between the LS headwall and WS vault. Blackberries and still overgrown on WS.(DWR Sutter Yard - afreitag)4/18/2016 WS vault is being overgrown with blackberries. They should be sprayed and cleared back. No other problems were noticeable with this crossing.5/12/2015 Only the right flapgate appeared to be abandoned. The left and middle flap gates were flowing water during the last inspection.11/17/2014 Same as last inspection.5/14/2014 Same as last inspection.10/30/2013 Same as last inspection.5/21/2013 Pumping plant was running and filling concrete vault on WS toe through the left flap gate and then flowing through levee pipe and filling irrigation ditch on LS. Left and middle flap gates appear to be connected to pumps and right gate appears abandoned. Recommend contacting owner to get more details.10/10/2012 Pumping plant has been disconnected from levee. Need to determine if abandonment is appropriate or if this is now a gravity drain with flap gate.
FIELD_STRUCT_DESC: 32-inch by 32-inch reinforced concrete irrigation culvert through the levee, approximately 28 feet below the crown. Transition between vault on the waterside (WS) and box culvert within levee section is made with a 41-inch corrugated metal pipe (CMP). Slide gate located on the landside (LS) at concrete headwall. Flap gate in concrete vault on the WS at terminal of pipes from pump structure in floodway. Pipes from pump station, located on the WS, are no longer connected. (Permit No. 3284, 1960 - Richards) [Additional Reference(s): DWR Levee Log, 2005].
FS Date: 10/11/2016 12:50:33 PM

Photo 2 of 2 : UCIP_FA_2016_50244_64667.jpg



8-foot X 14-foot concrete box on WS toe with slide gate and 3 abandoned flap gates.

| * Location | ** Rating | + Issue Type |
|---|---|--|
| LS : Land Side WS : Water Side CR : Crown | A : Acceptable M : Minimally Acceptable U : Unacceptable | Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement |
| N/A : Not Applicable | N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain | |

Sutter Maintenance Yard Maintenance Area 0003

Sutter Maintenance Yard Maintenance Area 0003

View of the slope that is not consistant it makes the crown narrower
were it dips in and out, but no evedence of slope erosion or sloughing.
Fall 2016.

Page 14 of 17

**Flood Control Project Maintenance
Levee Inspections**

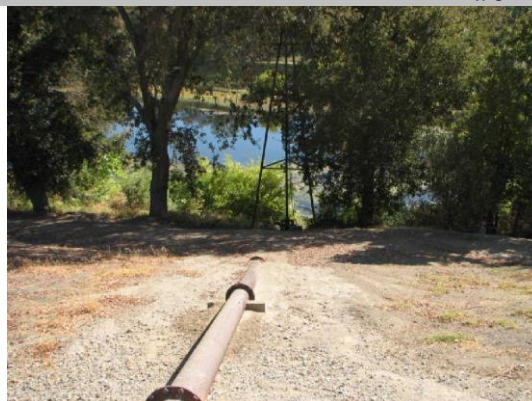
Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0003

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|---------------------------|-------|------------|--------------------------|---------------|
| Unit No. 01 Feather River | Right | 5.11 | 10/04/2016 10/04/2016 | Sterling York |

| | | | | | |
|---|----------------------|--------------|----|------------------------|---------------|
| LM Start | 3.78 | Rating ** | M | Issue No. | 145 |
| LM End | 3.78 | Issue Type + | En | Location * | LS |
| Category | Supplemental | | | GPS Latitude/Longitude | |
| | | | | Start | End |
| Item | DWR UCIP Field Study | | | 38.932482 ° | 38.932482 ° |
| | | | | -121.591005 ° | -121.591005 ° |
| DWR ID | | | | | |
| Comment Code | | | | | |
| | | | | | |
| Inspector Comment | | | | | |
| FS_ID:50248 DS_ID:17087 EP_NO: 1730 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 10/10/2016 Depression is still present at the LS toe but appears that it was dug out on purpose.(DWR Sutter Yard - afreitag)4/18/2016 Big depression on LS toe along the pipe alignment. 5/12/2015 Crossing appears to be in good condition. No noticeable issues to report.11/17/2014 Same as last inspection.5/14/2014 Same as last inspection.10/30/2013 Same as last inspection.5/21/2013 SBFCA project recommends replacing in accordance with title 23. Same as last inspection. FIELD_STRUCT_DESC: 12-inch steel asphalt coated irrigation pipe through the levee, 4.5 feet below the crown. Gate valve and pump located on the waterside (WS). 24-inch concrete standpipe located on the landside (LS) toe has been degraded to ground elevation and filled in with soil. Pipe remains intact. Steel tower over pump is located on the WS. (Permit No. 1730, 1959 - Robert L. Crandall). [Additional Reference(s): DWR Levee Log, 2005]. FS Date: 10/11/2016 12:55:25 PM | | | | | |

Photo 1 of 2 : UCIP_FA_2016_50248_64672.jpg



Pipe, pump, and tower on WS slope/toe.

| | | | | | |
|----------|-------------|--------------|----|------------|-------------------|
| LM Start | 3.78 | Rating ** | M | Issue No. | 145 (cont) |
| LM End | 3.78 | Issue Type + | En | Location * | LS |

Photo 2 of 2 : UCIP_FA_2016_50248_64671.jpg



Pipe at LS shoulder showing exposed concrete cutoff wall.

| | | | |
|--|--|---|---|
| * Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown | ** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable | N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain | + Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement |
|--|--|---|---|

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0003

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|---------------------------|-------|------------|--------------------------|---------------|
| Unit No. 01 Feather River | Right | 5.11 | 10/04/2016 10/04/2016 | Sterling York |

| | | | | | |
|--|-------------------------|--------------|----|------------------------|---------------|
| LM Start | 3.79 | Rating ** | C | Issue No. | 17 |
| LM End | 3.79 | Issue Type + | En | Location * | WS |
| Category | Earthen Levee | | | GPS Latitude/Longitude | |
| | | | | Start | End |
| Item | Encroachments | | | 38.932634 ° | 38.932634 ° |
| | | | | -121.590924 ° | -121.590924 ° |
| DWR ID | DWR_MA0003_01_f_2016_17 | | | | |
| Comment Code | | | | | |
| PO : Pole | | | | | |
| Inspector Comment | | | | | |
| Permitted for pumping plant, Permit #1730. | | | | | |

No Photos

| | | | | | |
|--|----------------------------------|--------------|----|------------------------|---------------|
| LM Start | 4.15 | Rating ** | M | Issue No. | 1 |
| LM End | 4.18 | Issue Type + | Ma | Location * | WS |
| Category | Supplemental | | | GPS Latitude/Longitude | |
| | | | | Start | End |
| Item | 2015 USACE Erosion Survey, DRAFT | | | 38.937451 ° | 38.937937 ° |
| | | | | -121.588512 ° | -121.588471 ° |
| DWR ID | DWR_MA0003_01_s_2016_1 | | | | |
| Comment Code | | | | | |
| | | | | | |
| Inspector Comment | | | | | |
| 2013 - Minor toe scour causing gradual erosion of bank slope. Site is within ecological reserve. 2015: Last observed in 2013. [2015 Site ID: FHR_12-3_R] | | | | | |

Photo 1 of 2 : FA_2016_MA0003_195_1_20160906_00001.jpg



USACE 2013 Photo #1

| | | | | | |
|----------|-------------|--------------|-----------|------------|-----------------|
| LM Start | 4.15 | Rating ** | M | Issue No. | 1 (cont) |
| LM End | 4.18 | Issue Type + | Ma | Location * | WS |

Photo 2 of 2 : FA_2016_MA0003_195_1_20160906_00002.jpg



USACE 2013 Photo #2

| | | | | | |
|--|--|---|--|---|--|
| * Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown | | ** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain | | + Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement | |
|--|--|---|--|---|--|

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0003

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|---------------------------|-------|------------|--------------------------|---------------|
| Unit No. 01 Feather River | Right | 5.11 | 10/04/2016 10/04/2016 | Sterling York |

| | | | | | |
|---|----------------------------------|--------------|----|------------------------|---------------|
| LM Start | 4.71 | Rating ** | M | Issue No. | 2 |
| LM End | 4.76 | Issue Type + | Ma | Location * | WS |
| Category | Supplemental | | | GPS Latitude/Longitude | |
| | | | | Start | End |
| Item | 2015 USACE Erosion Survey, DRAFT | | | 38.945188 ° | 38.945958 ° |
| | | | | -121.586096 ° | -121.586394 ° |
| DWR ID | DWR_MA0003_01_s_2016_2 | | | | |
| Comment Code | | | | | |
| | | | | | |
| Inspector Comment | | | | | |
| 2013 - Minor toe scour causing gradual erosion into the bank slope. | | | | | |
| 2015: Last observed in 2013. [2015 Site ID: FHR_12-8_R] | | | | | |
| | | | | | |

Photo 1 of 2 : FA_2016_MA0003_195_2_20160906_00003.jpg



USACE 2013 Photo #1

| | | | | | |
|----------|-------------|--------------|----|------------|-----------------|
| LM Start | 4.71 | Rating ** | M | Issue No. | 2 (cont) |
| LM End | 4.76 | Issue Type + | Ma | Location * | WS |

Photo 2 of 2 : FA_2016_MA0003_195_2_20160906_00004.jpg



USACE 2013 Photo #2

| | | | | |
|--|--|---|--|---|
| * Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown | | ** Rating A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable C : Corrected U : Unacceptable A/W : Acceptable but Monitor & Maintain | | + Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement |
|--|--|---|--|---|